THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

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Det. Bundle & Binder Feby. 9 '87

AROUND THE LAKES.

CHICAGO.

Special to the Marine Record.

C. F. Elmes, of Chicago, not C. F. Glimes, should have been the name mentioned in our report last week in connection with the fire boat "Chicago."

Edward McGraw, ship-joiner, has been putting a new cabin on the steambarge J. W. Westcott in place of the one destroyed by fire recently.

The Goodrich Transportation Co.'s propeller City of Ludington left this port Monday morning for Ahnapee and intermediate ports. She makes two trips per week, and no trouble has yet been experienced from ice. The company's steamers Chicago, Sheboygan, Muskegon, and Corunna and propellers Depere and Menominee are laid up at Manitowoc, where they will receive their usual winter overhauling and renovation.

The schooner James Mowatt has been chartered to load corn for Buffalo at 4½ cents. The schooner H. W. Sage has been loaded with 55,000 bushels of corn on the same terms.

The schooner C. P. Minch has had her old upper works taken off, which will be replaced by new.

At the Chicago Drydock Co.'s docks the schooner Halsted is receiving new stanchions, stringers, covering board, rail, and deck and recalking all over.

P. H. Fleming, of the firm of Beckwith & Fleming, vessel agents, Chicago, started Tuesday evening on his customary eastern winter trip.

Captain Thomas Beggs, of Oswego, who was married on the 28th of December, arrived in Chicago the following day with his bride. We wish them much happiness.

Captian Frank L. Bayliss, of the steamship T. W. Palmer, passed through Chicago New Year's day on his way to Los Angelos, California, where he will spend the winter months, and we sincerely hope that his health will be restored to enable him to spend many more seasons on our lakes.

The schooners Commerce and Helen Pratt and steamships Bulgaria and Averill are occupying Miller Bros.' drydocks, and the work upon them is being pushed forward as fast as the cold weather will permit.

Donaldson Bros., shipsmiths, have put on the steamship Haskell a new 3½ inches square stem-iron rabbited, and steel plates 16 feet long, 8 feet wide ⅜ths thick, riveted to the stem iron every 3½ inches, and thoroughly bolted to stem and frames; also, a big knee on her shoe. They are doing similar work on the steamship Averill.

List of transfer sales, etc., recorded at Chicago custom house during the month of December, 1887:

December 28, schooner Frank C. Leighton bill of sale $9,000; A. A. Parker, et al., to Frank Harlow. Frank C. Leighton, mortgage $4,000; Frank Harlow to A. A. Parker et al.

December 14, Hattie Earl, release $1,200; Kate Dettler to Frank Dettler, et al.

December 19, H. Rand, release $1,400; W. H. Horn to August Smith.

December 16, Willie Loutitt, release $540; John Harper to John Lang. Wm. H. Dunham, release $540; John Harper to John Lang.

Captain Julius Baker is having the schooner H. A. Richmond torn out forward and aft, and is placing new frames in her and square fastening her all through. She will go to a drydock to receive the finishing strokes.

The barge George Dunbar will be reconverted into a steambarge and will receive an engine 18 by 26, and a boiler 6½ by 12. Captain William Turner will take command of her as of old. WILLIAMS.

DETROIT.

Special to the Marine Record.

At Captain John Oades' yard for Hubbard & Son, there is under way a steamer, single deck, iron-strapped, 200 feet over all, 186 keel, 34 feet beam, and 13 feet depth of hold. Her machinery will be a duplicate of the Stafford, furnished by the Frontier Iron Works; a Scotch boiler from McGregor's. She is to rate A1*, and will cost when ready for sea $100,000.

Captain Oades is preparing figures for seven vessels, but until something more definite is known declines to say anything about what he proposes doing at his yard this season, and promises to report to you as soon as any or all of the contracts are closed.

At the yards of the Detroit Drydock Co. contracts are closed, and work commenced on five steamers. The terms for cost of building are strictly confidential, and the company declines to give any figures; but they are to be first class in every particular. The Drydock Co. say they will not take any other contracts until they can see that they can finish the work on hand within the required length of time.

I have no time to inquire about marine matters in other quarters, for my train leaves in fifteen minutes. I will endeavor to bring something with me when I come back Thursday, or Friday certain. I called at the office of John Horne, and he informed me that matters are very quiet here, nothing having been done yet. HOPKINS.

KENOSHA.

Special to the Marine Record.

The season of navigation recently terminated has been a fortunate season for vessel owners, at this as well as other ports bordering upon Lake Michigan, but it has also been a season of disaster to a portion of the shipping. Freight rates have been unusually favorable to owners, but the loss of life and the wreckage of vessels, has hardly a parallel in the history of lake navigation. Of the 119 lives lost, Lake Michigan stands credited with having engulphed more than five eights of the number and Kenosha realized its proportinate loss. The estimated loss of sail and steam vessels, including tugs, that have been destroyed by tempest or fire on the five great lakes is 74. Of that number three belonged to this port the others to City of Green Bay, Myosotis and Havana. The schooners Ostrich, Morning Star, Contest, are the only vessels in winter quarters at this port. The force and frequency of storms on the lakes, as the close of navigation approached, caused the largest portion of the Kenosha vessels to remain for the winter in the ports to which they had retreated for shelter.

The tug Fred Engle leaves this port for Milwaukee, within a day or two to receive a new boiler of three-eights steel, built by the Tift boiler works of Buffalo, and also other and extensive repairs to her machinery. Size of new boiler 2 by 4 and 8 by 8.

N. R. Allen & Sons, of Kenosha, recently purchased the schooner J. V. Jones. Consideration $7,000. A steamer passed this port bound north. C. A. E.

SANDUSKY.

Special to the Marine Record.

Messrs. Patte & Savord, better known as the "Frenchmen," are building a new tug for B. F. Dwelle, Esq., of this city, at the B. & O. docks. Her dimensions are 56 feet over all, 14 feet beam, 6½ feet depth of hold, and her engine 12 by 12 inches. She will be of very light draft, and will engage in the fishing trade.

The misunderstanding arising between the Ohlemacher Lime Co., of this city, and P. S. Horton, Esq., contractor of Cleveland breakwater, as to the amount of stone delivered to the latter by the former is likely to end in a law suit.

The steamer Telegram, recently bought by the Sandusky salt and fish association, is to be rebuilt; that is, the upper deck forward is cut away and she is to be put in first class condition to carry fish from Canada to this city.

Sandusky expects to get her straight channel approved of by congress this season.

The steamer Milton D. Ward's suit for damages against the steambarge Norma, of this city, has been postponed until April. The suit is the outcome of a collision between the two boats in Lake St. Clair September 8, 1886.

All the ship carpenters here are at present very busy; in fact, they have more than they can do. C. G. S.

BUFFALO.

The Lake Carriers' Association discussed the steering regulations for steam vessels and the desirability of requiring uniformity therein. There was considerable diversity of opinion, and the secretary was instructed to take a mail vote from each of the members on these questions: Shall uniformity in the steering of steam vessels be required by the government?. If so, should all vessels be required to steer in conformity with the suspended treasury order of last winter, i. e., with crossed chains in the so called steamer method of the lakes, or with straight chains in the manner customary on said vessels? The votes will be received up to January 12. An effort is to be made to have J. T. Whiting, of Detroit, go to Washington this winter and look after the interest of the association.

KINGSTON.

In regard to the loss of the Oriental this season John Irwin said that he is a master mariner, and resides in Kingston. He is an old sailor and has been the on water since 1852, starting first as a boy on the Eclipse, then owned by Calvin & Son. His knowledge of the Oriental is limited, but he was mate of the Scotia when the Oriental broke loose. Mr. Irwin said that the Scotia with the Oriental in tow left Charlotte on the morning of the 23rd of October, about 8:30 o'clock, bound for Toronto. When they left the wind was about south east, light, with the weather fair. The tow had been wind bound at Charlotte for two days. The Scotia was drawing about eleven feet one inch forward, and twelve feet aft. The witness knew nothing definite about the draught of the Oriental, but he believed she was drawing the same depth of water as usual. Witness heard no complaints from Captain Stewart as to her leaking or anything else. The captain of the Oriental controlled the loading of his own boat. Although Captain Stewart was lame from a broken leg, he was able to get around as lively as was necessary. After leaving Charlotte the steamer steamed up along the south shore to a point between Oak Orchard and the Devil's Nose. The wind veered from the southeast to east southeast, and the course mentioned was kept till noon, when the wind seemed to act steady and a course was shaped west by north three quarters north from Toronto. Between half-past three and four, the wind commenced to vere to the south, and the tow was run up along the south shore to make smooth water under the land, the captain thinking that the wind would heave down to south west. This was thought to be the best plan, and they fetched up near Niagara about ten o'clock that night, the wind still southerly and blowing pretty fresh. At that hour, to the best of the witness' knowledge, everything was all right. He was in the pilot house. The Oriental had her foresail hoisted. With that canvass set, witness could not tell whether the Oriental was heavy on the tow line. By the steamboat, they were making six miles an hour headway.

TRAVERSE CITY.

The special train arrived from Washington with Congressman Moffatt's remains, which were met at the station by hundreds of citizens. The funeral services were held Monday morning at the Congregational church. The remains were followed to the cemetery by a large procession of congressmen, Masonic bodies, and friends. Nearly every business house and residence in town was appropriately draped. The Washington delegation left at 4 o'clock Tuesday, for their homes.

A SHORT VIEW OF THE TARIFF.

PORT LOUISA, IOWA, December 29.

To the Editor of the Marine Record:

Your distinguished, though troubled letter of recent date to hand, and in response I wish to say that you may go to rest and leave all to me, for I will report the convention all O. K.

I am very much obliged to you for the check, and if I have any of it left after the convention I will send it home.

I am very sorry that I can not write you an article on the tariff issue as you desire, but the truth is my opinion has changed on that issue three times since I saw you last.

I tried to get a job in an iron mill belonging to a democrat, and he said he could not run his mill because of the tariff on iron. Went to a republican mill owner, asked for work and was told that he could not run his mill because he was afraid the duty would be taken off from iron; so the blamed tariff question has kept me out of a job, hence, I am divided in my opinion regarding it.

Yours truly, THE SECOND ENGINEER.

BOILER BUILDING.

If Buffalo is not getting her full share of the ship building it is quite possible that she is coming much nearer to it than is generally supposed. Two or three firms of marine boiler makers have for a long time been working at their utmost speed filling contracts. The Lake Erie Boiler Works has since last March taken contracts for 46 large boilers, and now has under contract 16 which must be finished before May. Nearly all of them are for vessels building elsewhere. The list includes a pair of double ender Scotch boilers for the Western Transit Co's. steamer building at Wyandotte, the boilers for James Ash's propeller, building at Cleveland, and some of the boilers for the boats of the St. Paul, Minneapolis, & Manitoba railroad company, building at Cleveland. The plate for these last runs as high as 1 3-16 inches thick.

Riter Bros. are also very busy. They have eight or ten large boilers under contract, including three for James Davidson at Bay City and those for Frank Perew's boat building at Cleveland. They will also build seven for which Henry Trout took the original contract, the latter firm being tied up with engine work.

Captain John Green will get the boiler of his propeller constructed out of the Susan E. Peck, at the Sterns Manufacturing Co. at Erie, and the Cuba's two new boilers will be built there. One of the Cuba's old boilers goes into the propeller D. J. Foley. Donaldson & Whitman are now compounding the Foley's engine. As Captain Green did not buy the name of the Peck he has applied for the privilege of changing it. The name was a family one and the Northwestern Transit Co., which sold her, will probably give the name to the propeller building for them by the Detroit drydock company.

As the vesselmen are to agitate the steering gear question at the Merchant Exchange it may be well to note what they are asked to do. Those who are advocating the reeving of wheel chains after the fashion of sail vessels point to the fact that ocean vessels are geared that way, while their opponents, the supervising inspectors of the lakes, call attention to the fact that while 1,376 steamers are steered after the old lake fashion, there are only 147 steered the other way. Of those inspected at Buffalo the proportion is 256 to 26; at Detroit it is 128 to 24, and at Cleveland 120 to 42. The large number, 42, geared the new way at Cleveland is accounted for by the inspectors in the report, by claiming that several large owners there have set themselves to disregard the order issued by the supervising inspectors last year, which prescribed the old lake style, on account of uniformity. It is stated that all steam canal boats are geared the old fashioned way. Among the vessels now in Buffalo geared the new, or sail vessel style, may be mentioned the Lehigh line, the boats of Smith, Davis, & Co., the D. M. Wilson, Nashua, Foley, Kasota, J. P. Donaldson, and several yacht.—*Buffalo Express.*

Captain J. W. Shea, one of the best known steamboat men running out of St. Louis, has retired from the river, having purchased an interest in the Holland & Thompson Manufacturing Co., of St. Paul. He will officiate as secretary and give his especial attention to the work of manufacturing the valves for which this company is famous. Captain Shea is an engineer of long standing, and was one of the ten men who met in Chicago in 1875 and formed the present marine engineers' beneficial association, he being chosen national vice president. Although Captain Shea has been running master for several years, his interest in the order has never been allowed to wane, he being a representative from No. 6 to Buffalo in 1886. Engineers throughout the country will be glad to hear of his success in his new enterprise.

A NEW CANAL UNION.

The "Union for the protection of the state canals" announces that it will hold its "first annual convention" in Albany on the 12th inst. The objects of this union are given as:

First, to obtain a reduction in elevator-transfer charges on canal grain at the ports of New York and Buffalo.

Second, to obtain a reduction in wharfage charges at the port of New York.

Third, to prevent the railroads from discriminating against the canals.

Fourth, to obtain adequate appropriations for canal improvements.

Fifth, to see that the laws relating to insurance on canal grain are rigidly enforced.

Sixth, to repeal or modify the Saturday half holiday act, so that shipping and canal interests may not be embarrassed and obstructed.

Ira Heath, Petrie & Green, John Westcott, and Frank Newcomb of Buffalo are on the committee of forwarders, merchants, and boat owners who issue the call. They insist that "it should be observed that this union, for protecting canal commerce, is in no sense opposed to the union for the improvement of the canals, but, on the other hand is in accord with the latter and with other bodies which seek to obtain needed appropriations for improving our waterways."

This movement seems to us to afford a convenient form for molding the boatmen's grievances against the elevators, and ought to relieve the annual council of all friends of the canals of the unseemly discussions of class interests. But like most new parties, this union's platform is too broad. Three out of six of its planks would better be left with the oldest union for the improvement of the canals for New York State.

THE improved demand for new tonnage has led our capitalists to invest largely in new ships and the tonnage under contemplation for next season's business is large. This confidence is not owing to any artificial conception in regard to next season's business but to good business principles. It is safe to say that we now have on the lakes a class of steamboats that can not be surpassed on any waters in the country.

Harper's Magazine for the first month of 1888 fully sustains its reputation from all literary and artistic points of view. It is full of interesting and seasonable matter. The first article is about "The Adoration of the Magi," by the Rev. Dr. Van Dyke, and records the various traditions as well as the truth about this curious incident of sacred history. Engravings of various famous pictures on the subject are give. One of them appears as the frontispiece of this number. "The Italian Chamber of Deputies" is an instructive historical sketch of the present popular branch of the Italian Legislature, by J. S. Farrer, illustrated by twenty portraits of prominent Deputies. No person who wants to keep pace with events can afford to omit reading this article. It tells of the men who are to hold Italy in her present high position in European politics, or let her slip back. Amelie Rives tells a pretty story of life south of the Potomac in "Virginia." The other portion of fiction is "In Far Lochaber," by William Black. This is Part 1. of a novel in Mr. Black's best style.

MARITIME LAW.

Griffin and others v. the Mariel and others.

COLLISION—TUG AND TOW—IMPRUDENT INCREASE OF SPEED.

District Court, N. D. Illinois. July 5, 1887.

A steam tug with two tows, one behind the other, entered the south branch of the Chicago river abreast of a steambarge, going in the same direction at the rate of about four miles an hour. Within half a mile the tug so increased her speed that the stern of her rear tow came abreast of the wheel of the barge which maintained her speed of four miles. The suction of the wheel caused the tow to sheer, so that she came into collision with a passing steamer. Held, that the tug was responsible for the collision, having, by increasing her speed so as to bring her tow abreast of the barge's wheel at a time when another steamer was passing, caused a dangerous situation, which she was able and ought to have anticipated.

Wm. H. Condon, for libelant.

Schuyler & Kremer, for the Mariel.

Wm. L. Mitchell, for the Butters.

Blodgett, J. This is a libel by the owner of the canal boat Iceland against the steam tug Mariel, the steambarge Butters, the tug Welcome, and the canal boat Messenger, for damages to the Iceland occasioned by a collision between the Iceland and Messenger, near Stilson's slip in the Chicago river, about a half mile below where the Illinois & Michigan canal joins the south branch of the river.

There is less conflicting and contradictory testimony than is usual in collision cases; and it appears without dispute that on the evening of June 24, 1886, the Mariel entered the south branch of the Chicago river, from the Illinois & Michigan canal, with the canal boat Servia and the canal boat Iceland in tow; the Servia being towed by a line of about 175 feet astern of the Mariel, and the Iceland by a line of about the same length, or perhaps longer, astern of the Servia. Just as the Mariel entered the river, the steambarge Butters came down the river from the stock yards, so that the tug and the barge were about abreast of each other when the Mariel drew into the river. Some of the witnesses say they were just abreast, and others say the barge was 40 or 50 feet ahead of the Mariel. Signals were exchanged between the tug and barge, by which it was agreed that the barge should keep upon the starboard or east side of the river. All of the testimony concurs in showing that the Butters was proceeding at the rate of about four or four and a half miles per hour, and that the Mariel, after having entered the river, increased her speed to such an extent that when they reached a point opposite Stilson's slip, which is not to exceed a half mile from the junction of the canal with the river, the Mariel and the Servia had gone clear past the canal with the river, the Mariel and the Servia had gone clear past the Butters, and the stern of the Iceland was abreast of the Butters' wheel. When the stern of the Iceland came abreast, or nearly so, of the Butters' wheel, the suction of the wheel drew the stern to the starboard towards the Butters, and caused the bow of the Iceland to sheer to port, so that she was brought in collision with the canal boat Messenger, which was proceeding up the river in tow of the tug Welcome, causing the injury complained of.

All the testimony seems to agree that the sheer of the Iceland was caused by her stern being drawn towards the Butters by the action of the Butters' wheel, and that she became unmanageable by her crew in consequence of this sheer; and the only question, it seems to me, in the case, is, who was blamable for the predicament into which the Iceland was thrown? The Welcome was proceeding up the south branch on the west side; and there was ample room for her and her tow, the Messenger, to pass clear of the Mariel and her tows, and the Butters; the Butters being upon the east or starboard side of the river as she was going down, and lying pretty close to the shore, so as to give the Mariel and her tows ample room to pass her. There is no evidence in the case that the Welcome was running too fast, or was in an improper place on the river, or that there was any bad seamanship in her own management or that of her tow the Messenger. She was proceeding in her own place, at a proper rate of speed, and handling her tow in the usual manner that tugs handle canal boats upon the waters of the Chicago river. There is no proof that the Butters increased her speed from the time the Mariel came abreast of her, nor that her speed was unusual or unsafe, but she seems to have proceeded at the same rate of speed at which she was proceeding before she reached the mouth of the canal; and it seems to me there can be no doubt but what the injury to the Iceland was occasioned solely by the act of the Mariel in attempting to tow the Iceland so closely alongside of the Butters. I do not think that the Butters was obliged to stop her wheel, or slow up, so long as she was not proceeding, any part of the time, at an unusual or dangerous rate of speed. The increase of speed was solely on the part of the Mariel, which increased, of course, the the speed of her tows, and perhaps rendered the Iceland more susceptible to the suction of the Butters' wheel; and the Mariel seems to me solely responsible for having brought the Iceland into dangerous proximity with the Butters. All the evidence concurs that the Welcome was coming up the river in plain sight, with her tow, the Messenger, giving the usual signals, upon the west side, or near the west bank of the river. Those in charge of the Mariel must have been able to see the Welcome approaching, and must have been able to calculate that, at the speed they were running, they would bring the Iceland abreast of the Butters at about the time the Iceland would be abreast of the Welcome or the Messenger; and hence the danger of the Iceland being caused to sheer, or lose her steerage, by the motion of the Butters' wheel, ought to have been anticipated by those in command of the Mariel. Seemingly, with entire disregard of the danger of attempting, in the narrow channel of the Chicago river, at the point where this collision occurred, to effect a safe passage for a tow alongside of the working wheel of a propeller, 9 feet in diameter, the master and pilot took their tow into the peril, and it seems to me that his negligence, and his alone, is responsible for the consequences. There will be a finding therefore, that the injury to the Iceland was caused by the fault or negligence of those in command of the Mariel, and that the damages should be paid by the Mariel.

The libelant in this case seems to have proceeded upon the assumption that he would make everybody that was in the vicinity of this collision parties respondent, whether he had any proof of their negligence or fault or not; and inasmuch as the proof has wholly failed of making the Welcome or the Messenger in any degree blameworthy, the libel must be dismissed, at the cost of libelant, as against the Welcome, Messenger, and Butters, and a decree entered in favor of the libelant against the Mariel alone for the damages and costs, and a reference to the commissioner to take proof in regard to the damages.

THE SAGINAW — MARITIME LIEN — WHARFINGER—ACCOUNT.

District Court, E. D. Michigan. October 19, 1885.

A libel for a balance of an account between a wharfinger and a steam boat, most of the items of which account were not maritime, was held not to be maintainable.

(Syllabus by the Court.)

On Exceptions to libel.

The libel averred that libelant was the owner of a wharf at Port Hope, one of the regular stopping places of the steamer; that it was customary for the Saginaw to deliver her consignments for that port upon this wharf, subject to her claim for freight and advance charges, which were collected by the libelant, and credited to the steamer; that the steamer, upon the other hand, was charged with such collections for freight and advance charges as was paid over, with dockage, and also for merchandise (salt and hay,) which libelant was accustomed to turn over to the steamer, to be disposed of at the lower ports by her officers, and accounted for; and that there was a balance due libelants upon this account of $146.20, for which he claimed a lien.

James J. Atkinson, for libelant.

George E. Holiday, for claimant.

Brown, J. This libel is for the balance of an account between a wharfinger and a steamboat, and is clearly not maintainable. The items of libelant's claim are (1) for freight collected for the steamer, and paid over to her, for which there is clearly no lien, even if more were paid than was due; (2) for wharfinger; and (3) for merchandise delivered to the steamer, to be disposed of and the proceeds credited to the libelant.

The last item I held not to be a lien in the New Hampshire, 21 Fed. Rep. 924.

Perhaps the items for wharfage might be a lien under the state law, if the suit were for a wharfage alone; but, if it be for a balance of a running account, the fact that some of the items are maritime in their character will not confer jurisdiction upon this court. The Gold Hunter, 17 How. 477.

The cases wherein a court of admiralty will take jurisdiction of accounts are well stated by Judge Ware in the Larch, 3 Ware, 28, 34. If all libelant's items were a lien upon the vessel, and the credits could be treated as so much payment upon account, I would entertain jurisdiction; but where it is apparent from the pleading that the suit is in reality to settle an account, and to recover a balance due, the libel will not be sustained.

"FOUNDERED."

Gayly she sailed from the Northern port, in the dawn of an April day,
When the sunrise touched the Nab's black crest, and blushed over Whitby bay

Father and two bold sons were there, as blithe as the morn, all three
"What ails thee, mate," to the fourth they said; "does aught go wrong with thee?

"By the birds that swoop round Kettleness, there's fish where our lines we set,
And the brave new coble springs to her work, as no boat has served us yet."

"Ay, the coble's tight and strong enow, an' I know what the sea-gulls mean,
But I left my missus bad up there," and he glanced at the headland green,

Where a red roof hung like a marten's nest, and his bold brown eyes grew dim;
With kindly cheer and honest jest, his fellows heartened him.

Or ever the sun was high at noon, the bright blue sky was black,
The wild white horses tossed their crests over the gathering wrack;

Over the gray seas fast and fierce, through the clouds of flying foam,
The squall swept on from the cruel east—the boat was far from home.

Three women watched from the great pier head, through the black and bitter night;
One lay and shivered to hear the blast, as it rushed o'er the rocky height,

And nestled closely to her side lay her little new-born son,
While the women said: "He'll back to see, long ere the day is done."

But ever the pale cheek flushed and burned, and ever the eyes grew wild;
She bade them take the babe away, "for he'll never see his child."

Many a boat in bootless search flew over the lessening waves,
Many a keen eye strained its sight, from the head with its crowded graves;

But the April days, in shade and shine, passed in a deepening pain,
And never over the harbor bar came the "Whitby Lass" again.

Hope sank and rose, and sank and died; the fishermen knew at last,
That found deep-sea harvest and busy staithes, four gallant "hands" had passed.

They found the boat on the flowing tide, ere the [illegible]
Her sails were rent, her block was jammed, her strop was half cut through.

That was all to tell of the desperate strife that for life and death they made.
Who sank to the depths of the great North Sea, with never a hand to aid.

—All the Year Round.

THE WHALES.

Sepcial Correspondence to the Marine Record:

MILWAUKEE, December 26.

The Whales have held the last meeting of the season and endeavored to make things pleasant for one another. Captain James McGinn proved by actual figures that Frank Caton was 736 years of age last spring; while, on the other hand, Frank Caton produced evidence tending to show that Captain McGinn appeared on this mundane sphere eighty years ago. B. C. Caton also proved McGinn to be the greatest foundry wrecker on earth, while McGinn asserted that Caton was the oldest steam pump engineer extant; after which they descended on the poor box and became quiescent.

Brother Jameison recited an original poem entitled, "Ireland was Ireland when England was a Puff." After the applause had subsided a vote was taken as to whether he should be immediately killed or appointed poet laureate to the Whales. Those in favor of the latter measure predominating, he was crowned with a wreath of oakum and chips, beautifully interwoven with old bolts and spikes.

The Whales took up a collection of $10,000 and will at once forward a challenge to the champion sprinter of Port Washington in behalf of Captain James Martin. Captain Martin is, beyond a doubt, one of the finest sprinters in this country, and has a very unique way of training, which consists in chasing after the mail trains, jumping culverts, etc. An old lady from Jones Island witnessed one of his exploits in trying to catch a mail train, and gazing after his flying form in wonderment and awe, ejaculated: "Dot schlim gaptain runs like a drashing masheen." Jim gets his head listed over to port a trifle, hauls his arms up into position, starts those legs, and—talk about meteors! There is a whole constellation!

A secret session was held, at which it was resolved that an address be engrossed and presented to Captain Jim Cochran, requesting that during the ensuing season he will agree to provide no more slabs to deputy marshals at Chicago, and that if he can not catch calves without salting the cows with slabs that he call upon some one of the order who can. I would recommend Captain W. J Carter as an efficient man.

Captain Jno. Cassin danced, or tried to dance, an Indian war dance as he had seen it done at Dollarsville; Captain Parker described his progress as a calithumpianist, and Captain Martin sang "O, Pal, Mine."

The Whales discovered that the poor box was empty and silently and sadly withdrew. Next week a number of applicants for admission to the order will be voted upon, and new rules and regulations introduced; also, an election of officers will take place, all of which we will inform you of in due time.

CAPTAIN KIDD.

CAPTAIN MARTIN CASEY.

The Chicago Tribune of Friday last says: Martin Casey, the oldest bridgetender in Chicago, is out of a job, and he would be very much obliged to some one who will give him another. He is a sturdy, honest old chap, and can furnish plenty of testimonials as to his character. For nearly twenty-seven years he has had charge of the Lake street bridge, and during that time he has worn out two bridges and saved the lives of seventeen persons. In 1847 Casey, a lad of 16, came to seek his fortune in America. Landing in New York, he made his way to Troy, found employment, saved a little money, and won a wife. In 1852 he came to Chicago and became a policeman. During the two years that he served on the force he made but one arrest. One night while patrolling his beat he found a man in a drunken stupor lying in an alley. There were no patrol-wagons in those days, and as the man was so drunk that he could not speak, Casey hailed a milk-cart and carried him to the station, which was over the old market on State street. While searching the prisoner it was found that he had a belt strapped around his waist that contained $7,000 in gold. Casey says the reason he never made other arrests was that there were no bad people in Chicago then and consequently no crimes were committed.

March 10, 1861, he was appointed bridge tender by Mayor Rumsey and given charge of the structure at Lake street, which was the first pivot bridge over the Chicago River. When the bridge was torn down to give place to a better one Casey saved the pivot and recently presented it to the Historical society. The second bridge was superseded by the present double-track steam structure, and the proudest moment of his life was the day he first pulled the throttle that set the machinery in motion and caused the big bridge to spin around more rapidly than a dozen men could have turned the old one.

Casey is especially proud of his record as a life-saver. Some years ago an ordinance was presented in the city council with the intention of having the city make some suitable recognition of the fact that he had rescued nearly a score of drowning persons, but somehow the ordinance was lost sight of, and the medal, or whatever else was intended, never reached the gallant old man. One of the most memorable events in his life occurred about ten years ago, when a young woman who had been betrayed by a prominent business man attempted to destroy herself by jumping into the river. Casey was on the bridge and heard the splash as she struck the water. Jumping down upon the abutment he grabbed a pike-pole and shouted to her to cling to the end of it. She shook her head and he hooked into her clothing, drawing her safely ashore and himself working over her until she was restored to consciousness. Then he gave her a bit of fatherly advice and sent her home in charge of an officer. The young woman is now a happy wife and the mother of two children and will no doubt be sorry to hear that the old man is out of a job.

A short time before this happened the schooner Queen of the West was lying near the bridge. The Captain's wife started to go aboard, but slipped off the gangplank and fell into the water. No one saw her but Casey. He threw her a plank and she clung to it until he could jump into a boat, pull out, and save her. At another time a woman got on the bridge and ran rapidly across it while it was being turned and plunged headlong into the river. Casey plunged after her, and held her up until both were rescued by a boat. He also saved a countryman who stumbled into the river while the bridge was open, a drunken sailor who fell off the dock, and many others. His last exploit, and one that is still fresh in the minds of the public, was the incident in which he shared the honors with Officer Brennan in saving the lives of Mrs. H. C. Staver and her sister and their two little boys. The ladies and their children were in a two-seated carriage, and their horse was running toward the open draw. Brennan seized the bridle by the bit and delayed it long enough to give Casey a chance to swing the bridge far enough shut to keep the whole party from going into the river. Probably Mrs. Staver will also be sorry to hear that the old man is out of a job.

Casey does not know exactly how he came to be removed. Last Tuesday night he received a note from the commissioner of public works saying his services were no longer wanted. He went over to the City Hall to inquire about it, but no one seemed to know. At least no one would tell. Casey thinks it was because he was a Democrat during Harrison's administration, but of course he is mistaken. He is sorry that he lost the place because he had been there so long that it was just like a home to him. He owns the house he lives in, at No. 344 Throop street.

LITERARY NOTICES.

None of the magazines begin the new year with more brilliant prospects than the Atlantic Monthly, of which the number for January 1888, has just been issued. The excellent steel portrait of Miss Murfree, "Charles Egbert Craddock," which forms the frontispiece, will gratify the numerous admirers of this famous writer. The number opens with the first chapter of "Yone Santo: A Child of Japan," the new serial story Edward H. House, and a most refreshing and entertaining chapter it is. "The Secret," a charming poem in three stanzas, by Mr. Lowell, will attract special attention. Unpublished Letters of Benjamin Franklin, to his brother printer, Strahan, of England, are full of value and significance, throwing a new light upon certain of the best aspects of Franklin's character, as well as upon provincial politics and society. A spirited beginning of "The Despot of Broomsedge Cove," the new story by Charles Egbert Craddock, is made in this number; which has also three more chapters of "The Second Son," the absorbing story by Mrs. Oliphant and Mr. Aldrich. In lighter vein, the descriptive articles on Southern California, by Charles Dudley Warner, and on Constantinople, by Theodore Child, are delightful reading, in particular to those whose good fortune it has been to visit "The Golden Hesperides," or the Queen city of the Golden Horn. Houghton, Mifflin & Co., Boston.

A lake captain, prominent for his corpulence and impatience, made himself heard in his neighborhood, about a single Flannel Shirt his wife purchased from one of our principal clothing stores. As soon as he attempted to make himself comfortable in this new Shirt he could hardly get into it, being too small in the body, too short, too tight in the sleeves, buttons came off, etc. Contrary to his orders, she *did not* patronize the Boston Dry Goods Store of *Kohn & Co.*, 213 Detroit st., near corner Pearl, the only Retail store in this City, where *they themselves manufacture genuine, home-made Shirts*, of *Flannel, Cassimere*, navy blue, double and single-breasted *Flannel Shirts*, 54 inches wide, 40 inches long, strongly sewed ☞ *or make them to order* ☜ if you select your own material, for 25c. each, including buttons, etc.

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MAJOR CHAS. J. ALLEN, P. O. Box H, St. Paul, Minn.

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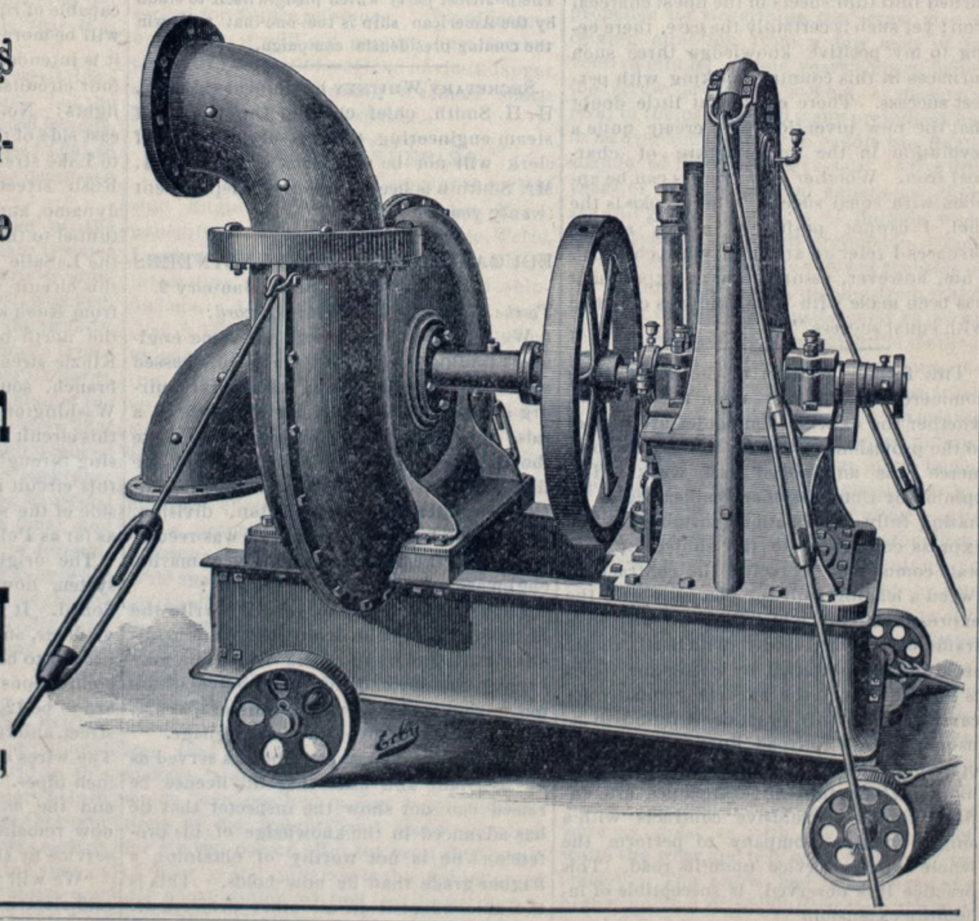

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Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, O., THURSDAY, JAN. 5.

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TO CONSIDER AND TAKE ACTION UPON ALL GENERAL QUESTIONS RELATING TO THE NAVIGATION AND CARRYING BUSINESS OF THE GREAT LAKES AND THE WATERS TRIBUTARY THERETO, WITH THE INTENT TO IMPROVE THE CHARCTER OF THE SERVICE RENDERED TO THE PUBLIC, TO PROTECT THE COMMON INTEREST OF LAKE CARRIERS, AND PROMOTE THEIR GENERAL WELFARE.

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MARINE RECORD—OFFICIAL PAPER.

STEERING REGULATIONS.

A meeting of members of the Lake Carriers' Association was held at Buffalo December 30, to discuss the steering regulation for seam vessels, and the action which it was desirable should be taken by the U. S. board of supervising inspectors at their annual meeting in Washington January 18. Expressions of opinion were read from managers and members at Ogdensburg, Oswego, Erie, Cleveland, Detroit, Port Huron, Marine City, Bay City, Grand Haven, Miwaukee, Chicago, etc., and incomplete statistics were presented, showing the steering of steam vessels registered at nineteen lake ports. The difference of opinion was so great that the board felt unable to satisfactorily voice it without calling for a formal vote by mail, which was ordered done on motion of Captain W. P. Henry, of Buffalo, seconded by Captain Alex. McDougall, of Duluth. This is the first vote of the kind which the association has had, and the first subject on which there has been any important difference of opinion. Ballots have been prepared and were sent out Tuesday, 3d inst. Each member's vote counts once for each 100 tons of vessel property owned or represented by him, this being as required by the constitution. All ballots, to be counted, must be back at Buffalo by January 12. The recommendation of the association to the supervising inspectors will be in accordance with the result shown by the ballot, and will be given in the MARINE RECORD. The questions to which replies are asked are as follows:

1. Do you think that uniformity of steerage should be required on all steam vessels on the great lakes?

2. If so, do you think they should steer in conformity with the rescinded treasury order of last winter, that is in the so-called "steamer method" of the lakes, with cross-chains; or in the "vessel method," with straight chains?

The secretary was also instructed to write to Mr. J. T. Whiting, of Detroit, to ascertain what arrangements could be made toward having him go to Washington temporarily to watch over and advance such measures as may be desired by the lake interests. Mr. Whiting would be a very valuable man for such purpose, and his services can probably be secured during the winter months by simply defraying his necessary expenses.

IN November last Aspinwall Fuller president of the marine engineers' beneficial association, New York, preferred charges against Edward Marsland, local inspector of steam vessels, of having illegally issued an engineer's license to William E. Wilson. The charges were investigated by Inspector General Dumont, and the result submitted to the secretary of the treasury. In a recent letter to Inspector Marsland, Secretary Farchild saas that the truth of the charges has been sustained. The secretary adds:

The department desires to express its unqualified disapproval of your insubordinate action in inducing a Mr. Bromley, a witness at the investigation, to apply for a license for which you had previously declared him ineligible. In consideration, however, of the recommendation of the supervising inspector general, and the fact that you have repaired the wrong done, so far as you could, by revoking the illegal license granted the department has concluded to take no further action in the case, with the understanding, however, that you will not, in the future, furnish any just cause of complaint of a similar kind; and that the duties of your office shall be conducted hereafter strictly in accordance with the laws and regulations governing the same.

The British vice consul at Moscow reports a new process for producing iron and steel direct from the ore, which has recently been invented and patented by a Russian engineer. The vice consul says: "The whole secret of the process lies in the construction of the furnace, which is simple and inexpensive. It will be difficult for our iron masters to believe that, under the new process, iron ore, after submitting it to the ordinary smelting process, is taking direct from the furnace to the rolling mill and turned into thin sheets of the finest charcoal iron; yet such is certainly the case, there being to my positive knowledge three such furnaces in this country working with perfect success. There can be but little doubt that the new invention will create quite a revolution in the manufacture of charcoal iron. Whether this process can be applied with equal success where coke is the fuel, I cannot positively assert, as the furnaces I refer to are fired with charcoal. I am, however, assured that an experiment has been made with coke, and was crowned with equal success."

THE formal decision of the inter state commerce commission upon the question whether the express companies are subject to the provisions of the act to regulate commerce was announced last week. The opinion by Commissioner Walker begins by stating fully the relations sustained by the express companies to the subject of inter state commerce. It recites the contract between a leading railroad company and the express company which handles the parcel traffic on its line, under which all freight seeking transportation by passenger trains is turned over to the express company for carriage, and this practice is found to be usual upon all railroad lines. The recent opinion of the supreme court is referred to, under which railroad companies are entitled to make exclusive contracts with a single express company to perform the whole express service upon its road. This practice it is observed, is susceptible of indefinite extension.

BOTH as regards the production and consumption of iron ore in the United States the year under review stands without a parallel. A marked feature of the year has been the discovery and development of mines in the Lake Superior regions, whence Chicago iron furnaces receive their supplies of ore, and in which Chicago capital is largely interested. The increase in the output of all the mines in the range the past year is placed at 1,000,000 gross tons over 1886, which was by far the heaviest year since mining commenced there. It is difficult to ascertain the amount of ore received here, as only partial returns could be secured. The fact, however, that the North Chicago rolling mills consumed 550,000 tons, justifies an estimate for all the establishments of Chicago and immediate vicinity of say, 1,200,000 gross tons, at an average cost here of $5.75 per ton.

VESSEL OWNERS generally concede that the season just closed was the most prosperous they ever experienced, and certainly the record of the shipping built on the lakes this year would seem to bear out the statement. Vessel property has seldom, if ever, been quoted so high as at present, and with the exceptions of the Vernon and Osceola, all the craft which were battered to pieces during the season were of low grade, principally canal schooners, which had out lived their usefulness except as carriers of coarse freights. The new tonnage added to the lake fleet during the year and placed in commission includes fifty-three vessels, in all valued at $5,817,000. The improvement is due chiefly to the high freights which prevailed from the opening of the season to its close, for iron ore from the Superior mines, creating a demand for craft of the largest class.

THE executive committee of the canal improvement union met last week to act under the resolutions passed at the canal convention in Rochester in last July. There were present Messrs. O. B. Potter, chairman, Capt. Ambrose Snow, the Hon. Dewitt C. Littlejohn, and Capt. William C. Clark of Oswego, Frank S. Witherbe of Port Henry, William E. Cleary of Brooklyn, Frank S. Gardner of New York, and Capt. M. Depew of Buffalo. It was decided to petition the next legislature to appropriate $1,000,000 for the improvement of the canals, lengthening the locks and deepening the channels. Senator Jacob A. Cantor has agreed to introduce the bill and Messrs. Potter, Littlejohn, and Witherbe were appointed to confer with Supt. Shanahan regarding the distribution of the appropriations.

THE owner of that Nova Scotian raft "thinks the shipment of undressed timber from Nova Scotia to New York by rafts would be of practical benefit to this country," and offers to risk another raft if this government will give him a subsidy. Certainly, put premiums on evasions of the customs laws! That is the best way yet suggested of reducing the surplus. By the way, we have been an admirer of this ratt owner O'Leary ever since his mother's cow kicked the lamp over in Chicago.

THE American Shipping and Industrial League will hold a convention in Washington on the 16th, 17th and 18th of January, 1888, to promote the interests of the merchant marine. The political party which pledges itself to stand by the American ship is the one that will win the coming presidential campaign.

SECRETARY WHITNEY has informed Mr. W. H. H. Smith, chief clerk of the bureau of steam engineering, that his services as chief clerk will not be needed after January 1. Mr. Smith has been in the navy department twenty years.

EDUCATION OF MARINE ENGINEERS

DETROIT, January 2.

To the Editor of the Marine Record:

We have heard that there are some engineers finding fault with the new rule passed by the board of supervising inspectors requiring engineers who apply for a license or a raise of the same to be able to read and write the English language and understand the first five rules of arithmetic, namely, addition, subtraction, multiplication, division, and simple fractions. This rule was recommended by the national committee of marine engineers for the following reasons:

If an engineer can not read or write the English language he is not competent to answer the signals and orders which he may receive, thereby endangering the lives of the passengers and crew who are under his care, the orders being given in that language.

Further, if an engineer who has served as an assistant and asks that his license be raised can not show the inspector that he has advanced in the knowledge of his profession he is not worthy of obtaining a higher grade than he now holds. This is the rule adopted in all other professions.

The aim of the marine engineers' association is to assist and encourage the members to a higher standing in engineering. If an assistant engineer will not make the effort, with all the opportunities that are afforded him by books, and other publications, then he is a drone in the hive and should be left where he belongs. We have seen engineers, when off watch, reading nothing but dime and other sensational novels; and these same men will apply for a higher grade of license when they are not able to figure the size of the safety valve or the weight necessary to be placed upon the same. This is the class of engineers who formerly had charge of the steamers on the western rivers. When racing they would pile on to the safety-valve all the old grate bars they could find on board, not knowing whether the boiler was capable of standing extra pressure. We have heard a man describing a race between two boats on the Missis-ippi, where the engineer had no old grate bars to place on the safety valve he ordered it chained down so that it would not blow off. An engineer who is capable of figuring the strain that a boiler can stand will never do this.

We think the steamboat owners who have so much capital invested should insist that this rule be maintained. ENGINEER.

"LET THERE BE LIGHT."

The first step toward putting to a practical test Alderman Clarke's river lighting scheme was taken. At that hour City Electrician Barrett stood at one of the four dynamos erected in the house of chemical engine company, No. 1, at the northwest corner of Washington and Clinton streets, and turned on the only circuit perfected, and known as No. 1. Instantly the twelve lamps erected from Washington to Wells street blazed forth, throwing a strong light and illuminating the entire waterway within the limits of the incomplete circuit. The lights were placed as follows: Two each at the foot of Washington street, Randolph, and Lake on the east side of the south branch; at Kinzie street, on the east side of the north branch; at Franklin and Wells streets, on the south side of the main river. These lamps were all that could be gotten in readiness, the weather having interfered with the laying of the other three circuits. The engines and dynamos are located in the basement of the house occupied by chemical engine company No. 1, at Clinton and Randolph streets. The apartment is 120 feet long and 30 feet wide, and when finished will be well adapted to the use it has been set aside for. The engine is a Buckeye of the self contained or high rotative speed pattern, and is a 125 horse power concern. It is guaranteed to operate 125 are lights of 2,000 candle power each. The engine ran a little loose, but this will be remedied as soon as time can be had for proper and more exact adjustment. Despite this, the machinery experienced no hot bearings, although it ran at a speed of 240 revolutions per minute The boiler is of the Porter style, 6 feet diameter and 18 feet long. The boiler is fed by a Knowles duplex pump, which forces the water through an immense Kensington heater and into the boiler at a temperature of from 180 to 200 degrees Fahrenheit. Only one of the four dynamos it is intended to press into service was in use. These are capable of ruuning thirty lights each, which will be more than sufficient to feed the lights it is intended to use at first. There are to be four circuits, as follows, each of twenty-five lights: No. 1, from Monroe street, on the east side of the south branch running north to Lake street, and on the main river east to Rush street bridge. No. 2 will leave the dynamo, and go through Washington street tunnel to the south side and again through the LaSalle street tunnel to the north side; this circuit will illuminate the main river from Rush street bridge to Kinzie street, in the north branch. Circuit No. 3 begins at Kinzie street, on the west side of the north branch, south to Washington street. The Washington street lights are the last fed by this circuit on that side of the river. Crossing through the tunnel, the next light in this circuit is at Monroe street, on the east side of the south branch, continuing south as far as Polk street.

The original intention of extending the system down to Twelfth street was abandoned. It is intended to illuminate the viaducts, and the new one at Twelfth street proved to be too long for any one of the two connections running south. In all there are to be 120 lights—two at the foot of each street, and from two to four on every viaduct. The wires are run through a system of two-inch pipes. All four of the circuits are laid, and the entire route is covered. All that now remains to be done is to complete the service by the erection of the poles.

"We will push the work as fast as we can," said electrician N. R. Patterson, of the western electric light company. "The programme did not call for a test before next Saturday, but the papers gave it out that the light was to be tried soon, and rather than disappoint the public we turned on all the lamps we had up in the first circuit. The beauty of this arrangement is that should any one of the dynamos give out, or a connection be severed, it can only extinguish the lights on one side of the river. There is no good reason why this should occur, but it was thought best to take no chances. Navigators, once accustomed to a brilliantly illuminated river, would find it risky business in piloting their vessels should an entire branch of the river be thrown into darkness."

City Electrician Barrett has so arranged matters that additional motive power, equal to 400 horse power, can be introduced when a demand for further extension of the system is made.—*Chicago Inter-Ocean.*

THE PICTURED ROCKS.

On the southern shore of Lake Superior, and some seventy miles west of Whitefish Point, and a short distance east of Munesing, are the famous Pictured Rocks. These may be described as a series of sandstone bluffs, rising in many places abruptly out of the water to a height varying from 50 to 200 feet. Two features impart to the scenery its remarkable appearance; the one, the strange style of the cliff excavations, worn away by the action of the lake, and the other the quite as strange way large portions of the surface have been colored by bands of brilliant colors. To the first is to be ascribed the name ("Les Portails") given the rocks by the French voyageurs, and to the many hues which the series of bluffs hold so boldly is to be traced the American name of Pictured Rocks. It is not now known when this term was first applied to them. The denuding effects of the water upon these cliffs are shown for a distance of about five miles along the shore. There is no beach, the cliffs rising vertically out of the water. In visiting the rocks, two ways are taken, by passing them in a steamer, and in taking a boat at some of the nearest points, as Munesing. The steamers run near enough in good weather for tourists to obtain a passing view. In going from east to west we notice a few of the most important objects. The Chapel is a vaulted apartment in the rock, thirty or forty feet above the lake level; an arched roof of sandstone rests on four columns of rock so as to leave an apartment about 40 feet in diameter and the same in length; within are a pulpit and altar. West a short distance of the Chapel is Chapel river, which falls over a rocky ledge 15 feet high into the lake. The Grand Portal is the most imposing feature of the series. It is 100 feet high by 168 broad at the water level, and the cliff it is cut in rises above the arch, making the whole height 185 feet. The great cave, entered through the Portal, extends back in the shape of a vaulted room, the arches of the roof built of yellow limestone, and the sides fretted into fantastic shapes by storm-driven waves. About a mile west is Sail Rock, a group of detached rocks, which bear a resemblance to the mainsail and jib of a sloop; the height of this is about forty feet. Miner's Castle, five miles west of the Chapel, and just west of Miner's river, is the western end of the Pictured Rocks, and resembles an old turreted castle with an arched portal. The height of the advanced mass in which the gothic gateway may be recognized is about seventy feet and the heigbt of the main wall forming the background is 140 feet. In regard to another part of the Pictured Rocks a writer says:

"In one place stands a majestic profile looking toward the north—a woman's face, the 'Empress of the Lakes.' It is the pleasure of her royal highness to visit the rock only by night, a Diana of the new world. In the daytime search is in vain; she will not reveal herself; but when the low-down moon shines across the water, behold, she appears! She looks to the north, not sadly, not sternly, like the Old Man of the White Mountain, but benign of aspect, and so beautiful in her rounded, womanly curves, that the late watcher falls into the dream of Endymion; but when he wakes in the gray dawn he finds her gone, and only a shapeless rock glistens in the rays of the rising sun."

GOVERNMENT MARINE WORK.

The impression prevails that with the decline of its shipping this country is losing interest in all that relates to maritime affairs. If this were true there would be small hope of the revival of our shipping industry. The facts fortunately do not support this opinion. Indeed, to judge by the amount of work done by the government entirely for the benefit of navigation, no other country, excepting England, is doing more than our own for the advancement of maritime matters. It is most peculiar that there is no abatement in this work, it is certainly increasing and those in charge are sparing no efforts to make it more valuable with each succeeding year. This may seem an anomaly in a nation that has steadily been withdrawing capital from maritime commerce. But it is not so; it simply shows that the country has not lost its maritime character and that there is only an ebb in its shipping trade.

The lighthouse and life-saving services are

probably the best known features of the government work connected with maritime matters. But there is another department of equal value with these that is little known, and the work of which has been so great and increasing within the last few years as to astonish even the experienced. We mean the Hydrographic office. Outside of strictly maritime circles the work of this office is but little known. Few probably know even of its existence and fewer understand or appreciate its value. And yet the Hydrographic office is of vital importance to our merchant marine and is now engaged in work that is of incalculable value to navigation. It is really the pilot of the navigator. It has undertaken not only to issue charts and collect nautical insormation, but also to make the path of vessels safer and to give the mariner a course that will keep him clear of dangers. And this work is being done in a most laudable manner. The progress made by it during the last few years exemplifies, as much, if not more, than any other government bureau the great and active interest taken by this country in maritime interest and the efforts it is making towark improving navigation. It would be well for the nation were the work of the Hydrographic office better known. This work shows that no interest enters more closely than the maritime into the commercial life of the nation, and that there is more done for the commerce of the country by the hydrographer than the dry business of cartography alone.

It is not many years ago that the Hydrographic office confined liself to a very simple line of work. But under the management of the present energetic and clear headed hydrographer, it has made itself an invaluable aid to the mariner. Branch offices have been opened in our most important seaports and not only ship-owners but merchants and underwriters testify to the importance and diversity of the work done for the advancement of safe navigation. So closely is this work connected with our sea trade that it is considered peculiar that it was so long neglected. When it is better known it will, we believe receive as strong public support as the Life-saving Service. Much is accomplished when the voyager upon the deep is given a chart that will point out the rocks and reefs he may encounter, but more is done when to this is added directions that will tell him of the location of the manifold dangers that may be encountered and which are not generally found marked down in charts. This work the Hydrographic office is endeavoring, and with no small success to perform. And as there are very few of our people who are not in some way interested in the sea, the enterprise of this bureau must commend itself. But as the Hydrographic office has attracted little attention, so its requests for means to push forward its work have received scant consideration. It needs more money. Its branch offices have been established but they cannot be enlarged with the present monetary allowance. Now that the field in which it works is more extensive and its helps to commerce are becoming stronger, congress should appropriate more money for its support, especially as every addition to its labors can only meet with commendation.—Maritime Register.

AMERICAN SHIPS.

Probably the most important meeting ever held to further the interests of the American Marine will be the National union convention of the American Shipping and Industrial League, which will begin in Washington on January 16. There is also reason to think that it will be the largest assemblage of the kind that has come together since the general sentiment in favor of reviving and developing the commercial marine assumed definite shape in the formation of the league.

It is not yet two years since this vigorous and thriving body was organized, but already it has become one of the most powerful and representative associations in the union. National in scope, thoroughly patriotic in sentiment and entirely practical in its aims, the league stands to-day as the clearest and strongest expression of the American people for ships of peace and ships of war worthy of the country, that has yet been made. There is not an American shipping interest from New Brunswick to Mexico, from Lower California to Puget Sound, or along the Great Lakes and rivers that is not incorporated with it, and there is scarcely an important industry of the country that is not in sympathy with the organization.

As is now generally known, the league had its origin in the south. The movement started with the Gulf Shipping League, an association representing the gulf ports, and having for its object the restoration of American shipping and the procuring of adequate and regular postal steam communication with foreign countries. The president was General McRae, of Arkansas. The Gulf League grew so rapidly, and the importance of its principles was so manifest that in May, 1886, Charles S. Hill and other commissioners appointed by it met in conference with a number of representative men from all sections at Washington. After a full discussion of the matter the meeting urgently and unanimously requested the southern association to organize a National League, "embracing all local river, lake and ocean navigation, for the purpose of bringing to bear upon congress and public opinion the necessity of legislation for the restoration of the American merchant marine."

In conformity with this request President McRae a few days later issued a call for a national convention to meet at Willard's hotel in Washington on June 23, 1886. This meeting was attended by representatives of shipping interests and other industries. A permanent organization was effected under the comprehensive name of The American Shipping and Industrial League. Its object as set forth in the constitution adopted is "to promote the development and distribution of the products of American labor by the extension of the merchant marine of the United States, and to establish thereby more intimate commercial intercourse with other countries by frequent and direct mail service. The convention, therefore, cordially invites the great interests and investments of shipping, agricultural, manufacturing and commercial, to unite with them in this important object. All industries, individual and corporate; all associations, agricultural and manufacturing, are entitled to membership and equitable consideration in the actions of the League."—New York Tribune.

SHIPPING OF THE UNITED STATES.

The sea-going merchant shipping of the United States afloat at the beginning of the present year numbered 6,481 vessels of all classes, measuring 2,566,926 tons. Of this number 379 were steamers of an aggregate tonnage of 506,668, and 6,102 of 2,060,258 tons were sailing vessels; but the entire number of documented vessels under the flag on June 30, 1886, was 23 534, and their tonnage, 4,131,135 83.

The estimated value of the entire mercantile marine of the United States was set down last year at about $180,000,000. There has been a fictitious depreciation going on during the year, which has had the effect to lower the marketable value of the shipping of the world. As this condition of things is forced, being brought about by a temporary over production of floating property, and a corresponding falling off in the demand for vessels, we do not consider that it affects the general average, which, to be justly accurate, should be based on the cost, making the usual allowance for the regular annual depreciation according to age. Adopting this method of calculation we find the value of the shipping of the country nearly the same as last year.

The tonnage tables do not show any increase in the merchant shipping of the country, taken as a whole, when compared with the preceding years. There is, however, a gain in the iron tonnage, showing that the construction of iron vessels is increasing. The exhibit of the gross tonnage shows a decrease of 104,351 tons from 1883, of 140,093 tons from 1884, and of 134,798 tons from 1885.

The registered tonnage of the country has decreased 193,041 tons in two years, and decreased 176,819 tons during the past year, while the enrolled and licensed tonnage has increased 52,948 tons in two years, and increased 42,021 tons during the past year. The proportion of sailing tonnage registered last year was 46 per cent, and this year it is 42; while the steam tonnage registered last year was 12.4 per cent, and this year it is 11.6 per cent.

The sailing tonnage has decreased 163,680.82 tons during the past year; but the steam tonnage has increased 28,066.59 tons. The canal boat tonnage has increased 1,061.66 tons, and the barge tonnage has decreased 245.39 tons.

The falling off in the tonnage of the country is more apparent than real. Greater care has been taken than formerly to eliminate from the lists all vessels lost, wrecked, abandoned, or sold abroad, and the records, therefore, for the present year show a larger tonnage of those classes. The actual losses, however, considerably exceeded those of the previous year. Thus, the records show that the tonnage of vessels lost at sea and wrecked exceeded that lost last year by 57,666 tons; that the tonnage abandoned at sea exceeded that abandoned last year by 7,872 tons; and that the tonnage of vessels sold to foreigners exceeded that so sold in 1885 by 6,850 tons, making the losses in the aggregate exceed the losses of last year by 72,388 tons, or more than half of the amount of the whole reduction in the tonnage.

MORE HELP IN THE ENGINE ROOM.

At the last convention of the national marine engineers' association, held in this city in January, the question of more help in the engine room of steam vessels was brought up, and it was shown that there was serious danger to the traveling public in the state of things now prevailing on many steam vessels. It was shown that vessels carrying passengers went on long trips with only one man on watch (in some watches) and that in case of any accident happening to him the lives of all on board were in serious peril. The subject was deemed so important by the engineers themselves that a committee was appointed to visit Washington and place the matter before the board of supervising inspectors and ask relief. This was done, but the application was denied upon the ground that the inspectors had no jurisdiction in the matter.

A case has just occurred at New Orleans which shows that some remedy is needed; either passengers must take their chances or the engine must take its chances of attention, for an engineer can not possibly be in two places at once.

The tug boat Corsair is the case we refer to, and this is the report of the local inspectors:

After a thorough investigation of the case, we find that the Corsair left her landing at Algiers at about 8:30 p. m. of the 13th inst., with a full complement of officers and crew, twenty-two passengers, destined for the exposition grounds on a pleasure trip, where she remained until after midnight, when she started back with Captain L. B. McNeely at the wheel.

At the time of leaving the exposition wharf it was quite foggy, but he could see the shore of the city on either side and the Natchez lying there very plainly. He rounded out under a slow bell, and so continued for a short time, when the fog thickened. He stopped and backed her to check her headway, and floated a considerable distance, when the fog cleared away enough for him to go ahead again under a slow bell.

The lights showed themselves on both sides of the river; he rang for full speed ahead, and ran that way for a short time, when he suddenly encountered a dense bank of fog; he immediately rang to stop and back her, but her engineer, Edward Dunn, being in the hold oiling at the time, valuable time was lost, but he stopped her as soon as he possibly could, which was about ten seconds, but only in time to feel her strike the shore with such force as to cause her to slide upon the sloping bank, careen to starboard, and fill and sink.

It is unfortunate that Mr. Dunn was not at the throttle at the time the bell rang to stop and back, but he was justified in going below to oil, as the testimony goes to show that the weather was clear when he left the throttle, and Captain McNeely was going at full speed when he ran into one of those dense fog banks that will develop itself so quickly on the river. Her bow then struck the eddy, rounded her to, and was in the bank before her headway could be checked.

When we take into consideration the number of ladies on board, the sudden shock, the darkness and confusion attendant upon such a scene, we believe that Captain McNeely and Mr. Dunn, the engineer, did all that men could do to save life, and accomplished a great deal under the circumstances.

We, therefore, exonerate them from all blame in the unfortunate affair.

Very respectfully,

P. J. O'REILLY,
W. YOUNGBLOOD,
Local Inspectors.

This is a precedent, and should be preserved for future reference. We sincerely hope that it will not require any further practical illustrations of the obvious danger to passengers in running steamers short-handed.—*Mechanical Engineer.*

MARINE ENGINEERING.

We have just received a copy of the "Marine Engineering of the Victorian Era," issued from the office of the *Shipping World*, London, Eng., which contains some very interesting facts to engineers and ship-owners. Among other things it says that in 1837 all steamships were propelled by paddle wheels, and although at that date the screw was beginning to receive some attention, it was not till many years later that the paddle wheel was largely superseded by the screw in sea going vessels. From paddle wheels and lumbering single cylinder engines of a small power to the screw propeller and high speed triple expansion engines of enormous powers is a wide space, which has been covered by remarkable feats in mechanical science. From the old flue boiler with a working pressure under 10 lbs. on the square inch, to the double ended cylindrical tubular boiler of colossal proportions and with a working pressure of 150 lbs on the square inch, is a step that would make the early boiler makers 'stare and gasp.' These developments have resulted in very large diminutions of the weights and space required for a given power. But the crowning result of fifty years' progress is the reduction of the consumption of fuel per horse power from 6 lbs. to 1½ lbs. per hour. A brife review, such as we propose giving, of fifty years' progress, must necessarily pass over many matters of interest, and will be limited to the practice of British engineers.

In the early years of the Victorian era the paddle wheel was generally driven by the 'side lever' engine, a type which had been employed for some years previously. * * * * The mere fact that the 'side-lever' engine was in general use for so many years shows that it answered very well. For slow moving paddle wheels it required little repairs. It allowed a long stroke of piston, and as there is no dead point a single cylinder could be employed without any trouble with the crank stopping on the centre. A modefied form of the 'side lever' engine, known as the 'Grass-hopper,' is used at the present time. In this type the fulcrum and side rods are at opposite ends of the lever, and the main connecting rod centre is at an intermediate point.

The great weight and space in the fore and aft direction, required for the "side-lever" type led to the use of direct acting engines for driving the paddle shaft. There were numerous types of these direct acting engines, many of them complicated and badly designed. The simplest and most compact was the "oscillating." Oscillating cylinders were used in the last century for a land engine, but the marine engine, with this distinguishing feature, is for all practical purposes a creation of this period.

* * * * *

The steeple engine is another specimen of the early types which remains in every-day practice. The cylinder is fixed immediately under the paddle shaft, and has two piston rods, whose upper ends are joined by a cross head above the shaft. The main connecting rod joins the cross head and crank pin.

The paddle wheel was not made on the feathering principle till some years after the commencement of this period. The custom was to fit the paddle floats on radial arms, so that, on entering the water, there were considerable shock and inefficiency in propulsion. When feathering wheels were introduced, there was some doubt as to the behavior at sea of the numerous rods and joints required to feather the floats, and the common radial wheel was the favorite up to the time when the screw superseded to paddle in sea-going vessels.

The year 1838 is remarkable in the annals of steam navigation; for the famous paddle wheel ships Sirius and Great Western made the first transatlantic passages, under steam, in the spring of that year. The Sirius was built at Leith in 1837. She was 178 feet in length, and was fitted with side lever engines of 270 horse-power, by Messrs. Wingate, of Glasgow. The Great Western was a larger and more powerful vessel than the Sirius. Her length was 212 feet, and the engines, by Messrs. Maudslay, were 440 horse power. The little Sirius started on the 4th of April, 1838, and arrived in New York on the 21st, being seventeen days on the passage; the Great Western started three days later, and arrived only one day after the Sirius. The excitement at New York was immense, and the arrival of these pioneers of the Atlantic liners was hailed with enthusiasm.

Just at this time, when the paddle-wheel appeared to most people the only suitable propeller for steamships, the screw was receiving attention from a few men of inventive minds. Some years elapsed before the screw propeller became a successful rival to the paddle, and many prejudices had to be overcome before the paddle was finally abandoned for sea-going vessels. After fifty years of experiment and experience, there are still great differences of opinion upon many questions in screw propulsion. Eminent scientific men have evolved theories of the action of the screw propeller from which the most opposite conclusions may be drawn and in the absence of a scientific method, each engineer proceeds to determine the proportions of his screws by rules peculiar to himself. It is, therefore, not surprising that some of the earliest specimens differed very much, and judging from more recent experiences, it may safely be concluded that some screw ships gave disappointing results owing to the badly proportioned propellers. A vessel gave an unsatisfactory result owing to a bad screw, but the fine stern of the ship was held to be the cause; and thus full sterns were in fashion for some time. Later experience proved that a fine run is necessary for an efficient screw ship. To these comparative failures were due, in some degree, the misgivings with which the screw was regarded for some years after its introduction. Moreover, the engine arrangements were such that the weight and space were as great as with the paddle-wheel, while the wear and tear were very much increased. The screw had to be driven at a higher number of revolutions than the paddle wheel, and the usual practice was to use a paddle wheel engine, and gear its crank shaft to the screw shaft by means of cog-wheels. In a few cases chain gearing was used. Thus with the screw there was the same heavy engine as with the paddle, and in addition, there were the gearing and the screw shafting. The wear and tear of the toothed wheels and of the screw shaft bearings were troublesome and expensive. As an illustration of the importance of a detail, the stern bearings may be mentioned. The stern shaft worked in a metal bearing, and the wear of the bearing was so considerable that cases occurred where vessels had to be docked and fitted after a few days steaming. This difficulty was finally overcome by the use of lignum vitæ in place of metal for the bearing surface.

In connection with the development of the screw propeller the names of Mr. F. P. Smith, and Captain Ericsson must be honourably mentioned. Both of these gentlemen brought out an experimental vessel in 1837. They was small craft, but their performances were encouraging. Some influential commercial men connected themselves with Mr. Smith, and with their assistance the Archimedes, a vessel of 237 tons and 80 horse-power; was built in 1838. This little vessel attracted much attention, for the owners had her steamed from port to port round Great Britian, and she made several passages in 1840 in competition with the paddle steamer Ariel, running between Dover and Calais. Satisfactory reports of the Archimedes induced the Admiralty to order a screw ship named the Rattler and the paddle ship Alecto to be built to the same dimensions, and with engines of the same nominal horse power. These vessels were 176 feet in length, and the engines were 200 horse-power. The paddles of the Alecto were driven by direct acting engines, the screw of the Rattler by geared engines running at 27 revolutions per minute, while the screw was working at 108 revolutions. A memorable experiment was made in 1843. The two vessels being placed stern to stern about a length apart, then with the engines of both ships working at full power the screw towed the paddle ship astern at the rate of 3 knots per hour. Later on further competitive trials were made between the Niger and Bastlick, larger and more powerful vessels than the two mentioned above. The later trials raised the reputition of the screw regarded simply as a propeller. In war ships the paddles were liable to be damaged in action, a disadvantage which was absent with the submerged screw.

For mercantile vessels the screw was proved by experience to be the more efficient propeller for the average round voyage. The early steamships expended so large a quantity of coal that the draught of the vessel, and consequently the immersion of the paddle boards was much diminished on the voyage and it was necessary either to start with the paddles so deeply immersed that they worked at a great disadvantage, or to have them sufficiently immersed long before the vessel got to port. This variation of draught did not affect the efficiency of a well immersed screw. In spite of this fact, however, the two causes already mentioned, viz., unsatisfactory engine arrangements and certain erroneous notions as to screw propulsion, prevented any extensive use of the screw propeller till about fifteen years after the construction of the Archimedes, But when reliable engines were made with the crank shaft applied to the screw shaft without the intervention of gearing, the screw rapidly increased in in favour. Although vertical inverted engines are now almost universally used for driving the screw, it was not for some little time after the supersedure of geared engines that the inverted type was generally adopted. The early direct acting screw engines were horizontal. The two types most generally used were the "trunk" engine and the "return connecting rod" engine. Mr. John Penn introduced the "trunk" engine, which on the whole proved the most satisfactory horizontal engine for large powers and moderate steam pressures. Although only seen in these days in a few old war ships the characteristic features are well known. The "return connecting rod" engine is the old steeple type placed horizontally, and modified to suit the altered position. It is now only used in unarmoured war vessels where it is considered necessary to place the the machinery below the water line. The vertical inverted engine soon became the favorite type after it was introduced, for it required less attention than the horizontal engines, and cost much less in repairs to the cylinders and other parts.

Mr. W. H. Conn, who has occupied the position of cashier and manager of the Hotel Martin for the past year, severs his connection to assume the management of Hotel Woodland, corner Eighth and Woodland avenue. Mr. Conn has made hosts of friends while at Hotel Martin, who will sadly miss his genial courtesies, but the Hotel Woodland is to be congratulated upon securing such a valuable man. May success crown his efforts is the wish of his many friends.

WANTED.

SITUATION AS PURSER—By a young man who has served seven years in that capacity. Good references if required. Boat sailing Lake Superior preferred. Address PURSER,
325 Theodore Street, Ottawa, Canada.

SCHOONERS FOR SALE.

THE ERIE & WESTERN TRANSPORTATION CO. will receive bids for the purchase of either or both of their two schooners Schuylkill and Annie Sherwood. The Company reserves the right to reject any or all bids. Bids will be received to and including February 1, 1888, by
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FOR SALE.

SCHOONER VERNIE M. BLAKE—For sale cheap. Capacity 60 tons; dimensions, keel 55 feet, beam 19 feet 6 inches, depth of hold 5 feet 6 inches.
Address 22 Territt street, Cleveland, O.

FOR SALE.

THE Steamers Russell Sage, John C. Gault, and A. L. Hopkins, all in first-class condition and rate A1. For full particulars address
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FOR SALE.

SCHOONER MAJOR N. H. FERRY—Class A2, 171 tons, carries 200,000 feet of lumber on 8½ feet draft. Was thoroughly rebuilt three years ago and is in first class condition. Apply to
MILLER BROS., 26 Market St., Chicago, Ill.

SCHOONER MOSELLE—Class A2½, 245 tons, carries about 300,000 feet of lumber. Thoroughly rebuilt in 1886, and is in first class condition. Apply to MILLER BROS., 26 Market St., Chicago, Ill.

NEW PROVIDENCE WINDLASSES.

The fact that all machines go down in front of the Providence windlass does not add anything to the value of that machine, but it serves to prove that there is no windlass in the market that can enter into competition with it, and we take this occasion to advise all owners and masters to insist on having the best machine that can be turned out. The Providence windlass is recognized as standard by all builders of ships and they know that when once placed on shipboard no trouble is experienced from them. It would, therefore, seem practical if everyone how contemplates fitting out a ship would order a windlass of the Providence pattern upon which they can depend in time of danger. We append the following list of orders:

Steamer City of Atlanta, New York, a pair of 6 by 8 inch engines for driving old windlass.

Steamers H. S. Bentley and Wm. M. Hoag, Oregon Pacific R. R. Co., each a Providence steam capstan.

Steam yacht Talisman, a Providence steam pump brake yacht windlass to replace a hand windlass of this company's manufacture.

Steamers Nos. 79, 84, 86, and 87, building by Detroit Drydock Co., each a Providence steam capstan windlass and steam capstan.

Steamer No. 89, building by same company, a Providence capstan windlass.

Schooner building by John McDonald, Bath, Me., a Providence capstan windlass.

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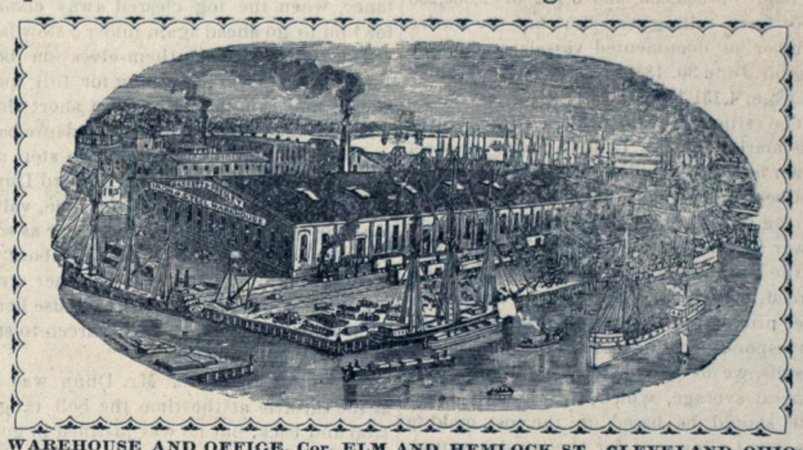

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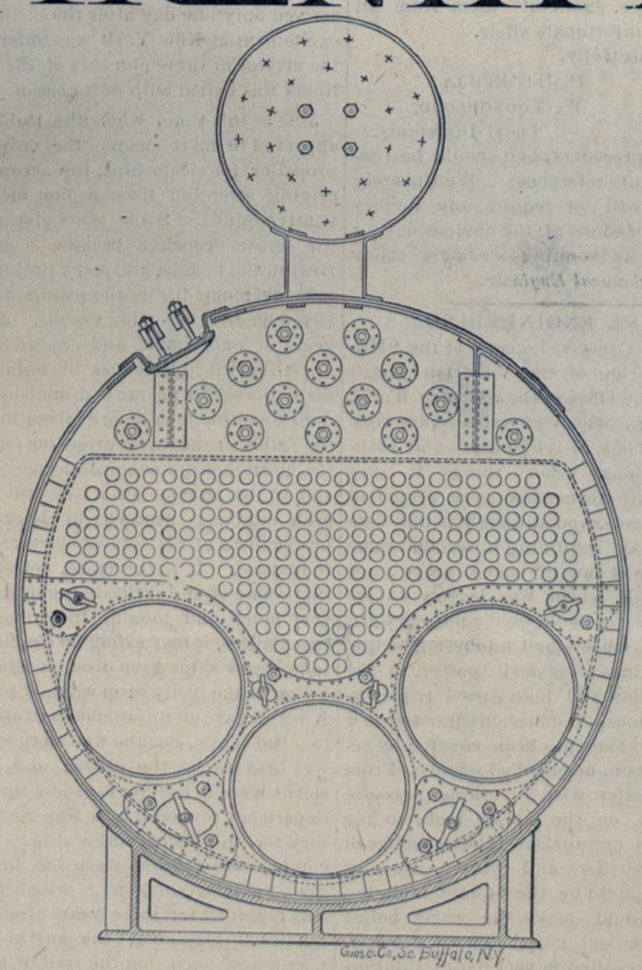

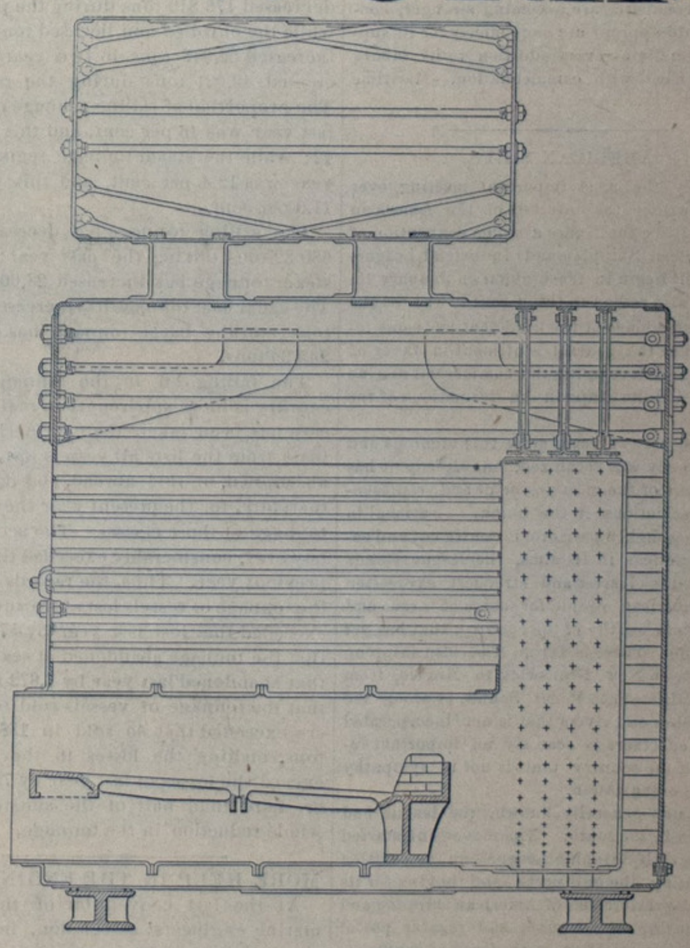

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Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*2 55 A M	*2 55 A M
No 8, N. Y. B & A Express	*8 30 A M	*3 55 A M
No 26, Elyria Accommodation	†7 45 A M	
No 24, Buffalo Ac'm via Sandusky	†10 05 A M	†10 15 A M
No 24, Toledo Accom via Nor	†10 05 A M	†10 15 A M
No. 10, New York & Boston, "F		*11 35 A M
No 12, N Y & B Fast Expr	*2 20 P M	2* 45 P M
No 2, Night Ex via Nor	9 40 P M	*10 00 P M
No 22, Night Ex via San ky	*9 40 P M	
No 26, Conneaut Accomm dation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*12 15 A M	*12 15 A M
No. 23, Cleveland Express	*2 15 A M	
No 3, Chicago Express via "	*5 40 A M	5 55 A M
No 25, Mich Accom Norwalk		†5 35 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	*10 50 A M	*10 55 A M
No 9, Chi Pac Ex via Norwalk	*6 55 P M	*7 15 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:15 a. m and 1:45 p. m.; returning, leave Nottingham at 8:50 a m, and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

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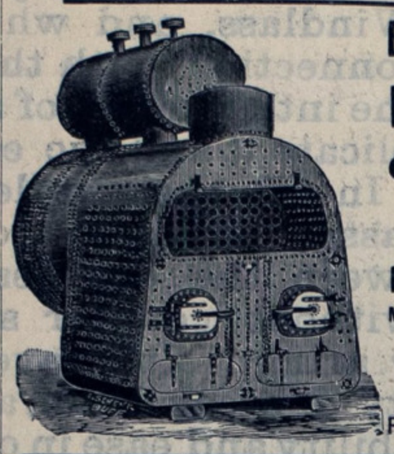

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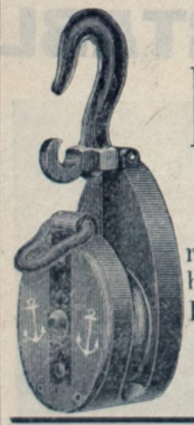

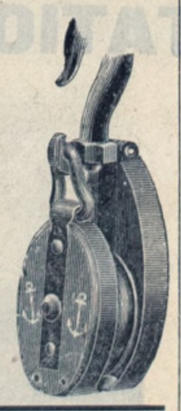

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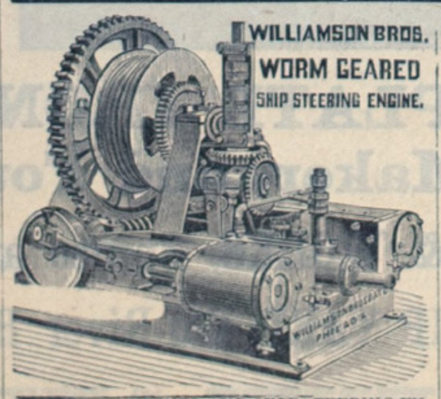

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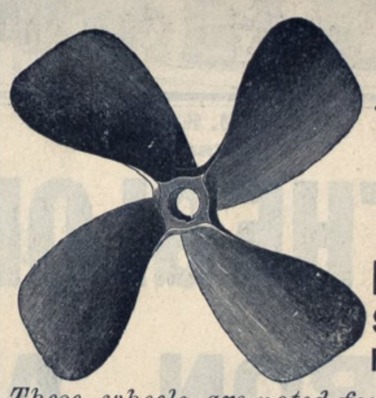

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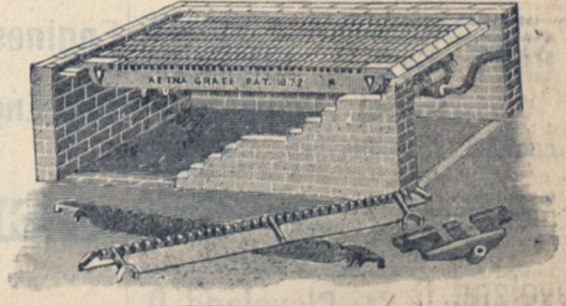

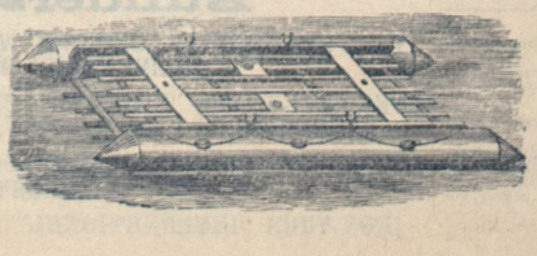

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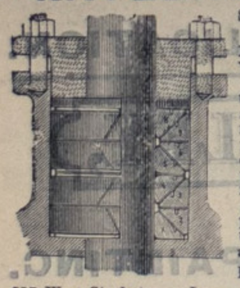

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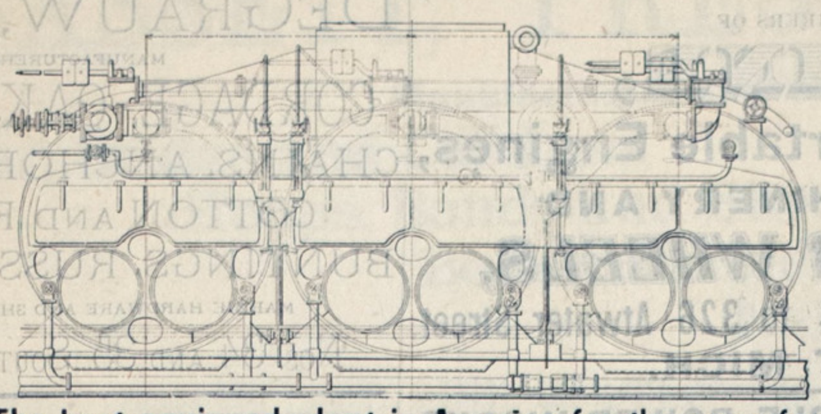

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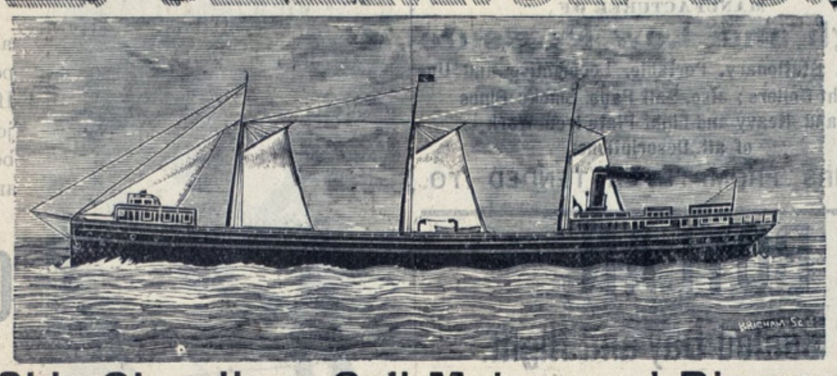

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IRON TUGS "INTERNATIONAL" AND "RECORD."

OFFICE & WORKS, Spruce and Elm Streets.
IRON SHIP YARD, Old River Bed, foot of St. Paul St
CLEVELAND, OHIO.